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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/080,745	02/22/2002	Agnes Y. Ngai	END920010078	2972
30400	7590	12/01/2004	EXAMINER	
HESLIN ROTHENBERG FARLEY & MESITI P.C. 5 COLUMBIA CIRCLE ALBANY, NY 12203			SENF, BEHROOZ M	
			ART UNIT	PAPER NUMBER
			2613	

DATE MAILED: 12/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/080,745	<b>Applicant(s)</b> NGAI ET AL.	
	<b>Examiner</b> Behrooz Senfi	<b>Art Unit</b> 2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>2/22/2002</u> . | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 101***

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1 – 4, 9 – 19 and 24 - 32 are rejected under 35 U.S.C. 102(e) as being anticipated by Deierling (US 6,239,847).

Regarding claims 1 and 16, Deierling '847 discloses, "method for filtering pixels of video frames" (i.e. fig. 3), and "obtaining pixel values of video frames of a plurality of video frames" (i.e. fig. 3, col. 1, lines 5 - 10) and "programmably, spatially horizontally filtering the pixel values of the video frames" (i.e. fig. 3, abstract).

Regarding claims 2 – 3 and 17 - 18, Deierling '847 discloses, "horizontal noise filtering" (i.e. fig. 3, 301), and "image scaling in claim 3" (i.e. abstract).

Regarding claims 4 and 19, Deierling '847 discloses, "filter coefficients for use in filtering of the pixel values" (i.e. fig. 3, 304 and 303).

Regarding claims 9, 14 and 24, the limitation as claimed "multiple sets of filter coefficients and selecting ....." reads on (i.e. fig. 3, 304, and 303).

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Regarding claims 10 and 25, the limitations "selecting whether to perform filtering or filtering and scaling" as claimed, reads on (i.e. col. 5, lines 46 – 60).

Regarding claims 11 and 26, the limitations "preprocessing ..... in real time" as claimed, reads on (i.e. col. 7, lines 37 - 38).

Regarding claims 12 and 27, the limitations claimed are substantially similar to claim 1 and 10, therefore the grounds for rejecting claims 1 and 10 also applies here.

Regarding claims 13 and 28, the limitations "filtering prior to encoding" as claimed, reads on (i.e. fig. 3, 301 – 304, are prior to encoding and col. 3, lines 20+).

Regarding claims 15 and 30, the limitations "repeatedly employing multiple sets of filter coefficients ....." as claimed, reads on (i.e. fig. 3, 310).

Regarding claims 29, the limitations claimed are substantially similar to claim 14, therefore the ground for rejecting claim 14 also applies here.

Regarding claims 31 - 32, the limitations "program storage device/software implementation ....." as claimed reads on (i.e. fig. 1, and programmable filter).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5 – 8 and 20 - 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deierling '847.

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Regarding claims 5 and 20, Although Deierling '847 does not explicitly mention "switching coefficients". However Deierling '847 does teach (i.e. fig. 3, col. 4, lines 61 - 54), that the necessary coefficients from coefficient tables 304 would be selected by the filter 303 while performing filtering, which is equivalent to "switching coefficients" and have similar effect as "switching coefficients".

Regarding claims 6 and 21, the limitations claimed "dynamically selecting new filter coefficients" reads on, Deierling '847 (i.e. fig. 3), where teaches the necessary coefficients would be selected by the filter 303.

Regarding claims 7 – 8 and 22 - 23, Deierling '847 does not explicitly mention "luminance and chrominance". However, Official Notice taken to note that, In general video signals has both "luminance and chrominance" component, and in a filtering process of video signal both components "luminance and chrominance" would be subject to filtering. For example: Deierling '847 teaches programmable filtering in digital video signal processing and/or communication system (i.e. fig. 3), in which the incoming signal would include the "luminance and chrominance" components, therefore it would have been obvious to one skilled in the art that the filtering process of incoming video signal including "luminance and chrominance" would be subject to filtering process.

### ***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Behrooz Senfi** whose telephone number is **(703)305-0132**.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Chris Kelley** can be reached on **(703)305-4856**.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**Or faxed to:**

**(703) 872-9314**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relative to the status of the application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

B. S. B. S.

11/22/2004

  
CHRIS KELLEY  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600